Water-Data Report 2011

383840075094001 Local number WCV-176-PW01

Northern Atlantic Coastal Plain aquifer system
Columbia Group

Sussex County, DE

LOCATION.--Lat 38°38'39.8", long 75°09'39.9" referenced to North American Datum of 1983, Sussex County, DE, Hydrologic Unit 02060010.

WATER-QUALITY RECORDS

WELL CHARACTERISTICS.--Depth 61 ft. Upper casing diameter 2 in; top of first opening 56 ft, bottom of last opening 61 ft.

PERIOD OF RECORD.--May 2011.

REMARKS.--The purpose of this project was to study the effects of suburban land use on the quality of shallow groundwater in the coastal plain of Delaware.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 1 of 5

[%, percent; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; SiO_2, silicon dioxide; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated; U, analyzed for but not detected]

Date	Sample start time	Medium name	Sample type	Barometric pressure, mm Hg (00025)	Tempera-ture, air, °C (00020)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	pH, water, unfiltered, laboratory, standard units (00403)	Specific conduc-tance, water, unfiltered, laboratory, µS/cm at 25 °C (90095)
05-12-2011	1230	Groundwater	Regular	762	17.0	5.2	52	5.4	E 6.1	E 72.9

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

Part 2 of 5

[%, percent; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; SiO_2, silicon dioxide; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated; U, analyzed for but not detected]

Date	Sample start time	Specific conduc-tance, water, unfiltered, µS/cm at 25 °C (00095)	Tempera-ture, water, °C (00010)	Dissolved solids dried at 180 °C, water, filtered, mg/L (70300)	Hardness, water, mg/L as $CaCO_3$ (00900)	Calcium, water, filtered, mg/L (00915)	Magne-sium, water, filtered, mg/L (00925)	Potassium, water, filtered, mg/L (00935)	Sodium, water, filtered, mg/L (00930)	Alkalinity, water, filtered, inflection-point, incremental titration method, field, mg/L as $CaCO_3$ (39086)
05-12-2011	1230	75	15.4	47	8.62	2.37	.654	1.08	10.6	11

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 383840075094001, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/383840075094001.2011.pdf

383840075094001 Local number WCV-176-PW01—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
Part 3 of 5
[%, percent; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; SiO_2, silicon dioxide; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated; U, analyzed for but not detected]

Date	Sample start time	Bicarbonate, water, filtered, inflection-point, incremental titration method, field, mg/L (00453)	Bromide, water, filtered, mg/L (71870)	Chloride, water, filtered, mg/L (00940)	Fluoride, water, filtered, mg/L (00950)	Hydrogen sulfide, water, unfiltered, mg/L (71875)	Silica, water, filtered, mg/L as SiO_2 (00955)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, filtered, mg/L as N (00623)	Ammonia, water, filtered, mg/L as N (00608)
05-12-2011	**1230**	13	.0344	12.8	< .04	U	22.6	4.75	< .05	.0107

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
Part 4 of 5
[%, percent; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; SiO_2, silicon dioxide; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated; U, analyzed for but not detected]

Date	Sample start time	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrate, water, filtered, mg/L as N (00618)	Nitrite, water, filtered, mg/L as N (00613)	Organic nitrogen, water, filtered, mg/L (00607)	Orthophos-phate, water, filtered, mg/L (00660)	Orthophos-phate, water, filtered, mg/L as P (00671)	Phos-phorus, water, filtered, mg/L as P (00666)	Total nitrogen, water, filtered, mg/L (00602)	Iron, water, filtered, µg/L (01046)
05-12-2011	**1230**	.059	.059	< .0010	< .04	.058	.0188	< .020	< .11	7.6

WATER-QUALITY DATA
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
Part 5 of 5
[%, percent; $CaCO_3$, calcium carbonate; N, nitrogen; P, phosphorus; SiO_2, silicon dioxide; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; µg/L, micrograms per liter; <, less than; E, estimated; U, analyzed for but not detected]

Date	Sample start time	Manga-nese, water, filtered, µg/L (01056)
05-12-2011	**1230**	.16